

New Legislation Aids Hazard-Reduction Burning in Florida

Dale D. Wade and Michael C. Long

ABSTRACT—In 1977, the Florida legislature passed the Hawkins Bill authorizing the Division of Forestry to conduct prescribed burns in hazardous accumulations of wildland fuel on private holdings, provided that the owner does not object. During the 1977-1978 fire season the division operated under the law to burn 13,000 acres in absentee ownerships. Initial success of the statute suggests that it can serve as a model for other states with similar fuel-management problems.

Many states have enacted laws that allow hazardous accumulations of wildland fuel to be reduced as necessary by prescribed fire. But even in those states, the buildup of fuel continues unchecked on most lands in absentee ownership. Florida recently passed legislation to correct this problem.

Background to the Legislation

The Florida Division of Forestry has long had the statutory right to authorize prescribed burns and to assist in planning and executing them. Hundreds of thousands of acres are burned under such authorization each year. But the law excluded additional hundreds of thousands of acres in absentee ownership. Acreage in this category has skyrocketed in the last two decades, particularly in south Florida.

Until the present century, much of the interior of south Florida remained flooded throughout the year. In order to "reclaim" these wetlands for agriculture or speculation, vast drainage projects were undertaken. For example, in 1900 approximately 60 percent of the 1,355,000 acres in Collier County in extreme southwest Florida were classified as freshwater wetland (Lehman 1977). By 1973, this figure had decreased to 30 percent. In one case over 128,000 acres were drained, cut into blocks by 800 miles of roads, subdivided into lots, and sold worldwide. Less than 1/10 of 1 percent of these lots have homes on them. The county tax appraiser estimated that 90,000 of the 150,000 land parcels in the county are currently in absentee ownership.

Here and elsewhere in south Florida, plentiful rain, long sunny days, and warm temperatures combine to produce a lush understory beneath the pine and cypress during the wet season. This dense tangle, however, becomes progressively more flammable during the dry season from November to May as surface waters recede and disappear (fig. 1).

Drainage and the associated road-building not only expose more land to hazard for longer periods than in earlier decades, but the resulting burns foster an in-

crease in fire-adapted vegetation that aggravates the hazard.

Between 1963 and 1970, wildfires averaged 42 acres per fire and 8,800 acres per year. Between 1971 and 1977, the average was 325 acres per fire and 85,048 acres per year. This phenomenal increase in acreage per fire is attributed primarily to the completion of a 180-mile system of drainage canals in 1970. Collier County has its share of lightning; southwest Florida records the highest number of thunderstorm days in the country (Maier 1977). Nonetheless, most fires are caused by people—either intentionally or through carelessness.

In the early 1970s, drought-year fires also devastated the Everglades to the east of Collier County. Not only did these fires consume vast amounts of organic soil, but their smoke settled over the "Gold Coast" for days at a time during the height of the tourist season. Air and highway traffic were disrupted, poor visibility caused numerous accidents, and hospital admissions for respiratory ailments increased.

In the fall of 1974, State Forester John M. Bethea invited representatives from more than 25 organizations—including federal, state, and county agencies, universities, special-interest groups, and commercial landowners—as well as concerned individuals to attend an Open Forum on Fire Management of South Florida Wildlands. This forum met to discuss conflicting views between users and managers and to establish a workable fire management policy in south Florida. Attendees reached a consensus, and their findings were published by the Florida Division of Forestry (1974).

The New Bill

One conference finding was implemented through the efforts of State Representative Mary Ellen Hawkins of Collier County. She introduced a bill that would allow the Division of Forestry to conduct prescribed burns on any wildlands where heavy understory fuel buildups created the potential of a destructive fire.

The bill became Section 590.025 of the Florida Statutes in May 1977. Known as the Hawkins Bill, it states that, at the request of the governing body of a county, the Division of Forestry (DOF) can designate any township as an area of high fire hazard and can conduct prescribed burns of wildlands within it. Before taking such action, the DOF must prepare a statement of why such burns are needed. The statement is included in the annual tax notice sent to each landowner in the designated townships. At least 10 days prior to burning, the DOF must place legal notices in local newspapers as to locations and tentative dates. If landowners do not object, the burn is conducted as planned; if a landowner does object, his property is excluded from the burn. The statute does not limit the burns to absentee holdings, but that was the intent of the legislators.

The question of liability should a prescribed fire escape is not a problem; the Florida Division of Risk Management handles general liability for claims up to \$50,000. Anything over that amount is covered by existing legislation that provides citizens with relief through the legislative process from damage resulting

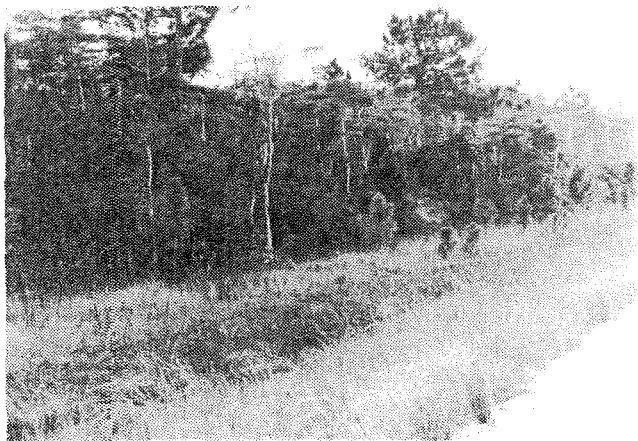


Figure 1. A portion of the Big Cypress Swamp in Collier County. Flash fuels stretch from the road shoulders to contiguous multicanopy forests that become extremely flammable during the 6- to 7-month dry season. Such conditions are common on 200 square miles where the swamp has been drained and divided into blocks by 800 miles of little-used roadways.

from proven negligence by a state agency or its employee.

The expenditure of public funds on private lands might have been a pitfall, but the expenses of hazard-reduction burns were construed as being similar to police expenditures for protecting the public. The benefit to private landowners is minimal compared to the risk of major wildfires. Since the lands in question are in absentee ownership, nothing would be done to reduce the hazard were it not for this program. Thus, the greater benefit derived is to the public, not the landowner.

When the Hawkins Bill was first introduced into the legislature in 1975, the DOF decided that a major effort to inform the public of the expected benefits of prescribed fire would be required. This program included preparation and distribution of a pamphlet on prescribed fire in Collier County, speaking engagements, the showing of a movie advancing the benefits of prescribed fire, interviews in the media, school programs, and personal contacts with county commissioners, state legislators, and other influential people.

Assessment to Date

In preparation for the 1978 spring fire season, the DOF selected 10,000 acres to be burned in Collier County. Favorable weather resulted in 13,000 acres being burned between December 1977 and February 1978 under the Hawkins Bill. Individual fires ranged from 40 to 8,000 acres and cost an average of 27 cents per acre. (Average costs excluding the 8,000-acre burn were 60 cents per acre.) Costs were low because high-hazard areas had already been mapped under the existing fire management plan. Furthermore, little line plowing was necessary because natural and man-made

boundaries were used to confine the fires. These burns also provided training for new personnel.

Implementation aroused the interest of other landowners, who in turn requested authorization to conduct prescribed burns on their property. In 1977, authorizations to burn were issued on 208,000 acres in Collier County for hazard reduction, other silvicultural purposes, and for range management.

The 1977-78 fire season was relatively light in Collier County (263 wildfires burned 16,000 acres) mainly because of above-average rainfall. Those wildfires occurring adjacent to areas that had been burned by prescription required only limited control. Several fires carried smoke plumes into populated areas with a resulting decrease in visibility. However, no deterioration in urban air quality was noted in conjunction with the hazard-reduction burns, undoubtedly because smoke management had been considered in the prescriptions. The authors know of no criticism of this law; on the contrary, many favorable comments have been received.

The 1978-79 fire season was again very wet. This wetness, coupled with mid-season changes in supervisors at the DOF, resulted in only 1,500 acres being burned under the Hawkins Bill. Nevertheless, the program has been judged a success and will be expanded to other Florida counties this winter. Its full potential, however, will probably not be realized until the next drought year.

More details—including a copy of the bill, the notice sent out with the tax assessment, and the newspaper advertisements—are available from the authors. ■

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THE AUTHORS—Dale D. Wade is research forester, Southern Forest Fire Laboratory, Southeastern Forest Experiment Station, USDA Forest Service, Macon, Georgia 31208. Michael C. Long is chief, Fire Control Bureau, Florida Division of Forestry, Department of Agriculture and Consumer Services, Collins Building, Tallahassee 32304.
